AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-41. (canceled)

42. (new) A method for detecting a passage associated with an access door in order to guarantee passage of one person only, said method comprising the following steps:

determining a profile of a person by means of a vertical row of infra-red emitting cells (D1) arranged at an entry to a door opposite receiving cells connected to a control unit (CU) configured to manage a sampling and a frequency of emission of signals;

analyzing said profile, said analyzing step comprising the following sub-steps:

filtering zones of said profile in order to mask the zones or to eliminate interference zones, and

dividing said profile into zones which are processed separately; and

as a function of said analyzing step, the access door is opened or remains closed.

43. (new) The method according to claim 42, wherein each zone is characterized as a function of a dimension of the zone in order to determine whether the zone corresponds to a person, a child or an object.

44. (new) The method according to claim 42, wherein each zone which touches the ground is characterized in order to distinguish by the shape of the zone, a child from a trolley and a child from a satchel or a backpack.

45. (new) The method according to claim 42, wherein each zone which does not touch the ground is characterized in order to distinguish a carried child from an item of luggage.

46. (new) The method according to claim 42, wherein an additional filtering is carried out in order to eliminate backward movements of the person.

47. (new) The method according to claim 42, wherein the profile is reduced to a true size.

48. (new) The method according to claim 42, wherein after dividing the profile into zones, a size and a volume of each zone is determined.

49. (new) The method according to claim 42, wherein after identification of a zone touching the ground, a trolley or bag is identified as a function of a volume of the zone.

50. (new) The method according to claim 42, wherein after identification of a zone not touching the ground, a child or a bag is identified as a function of a volume of the zone.

51. (new) The method according to claim 42, wherein after filtering and before dividing into zones, the passage of a plurality of people side by side is detected.

52. (new) The method according to claim 42, wherein the following are detected from the profile obtained:

- a first person accompanied by a first child,

- two people following one another very closely,

- a third person moving forwards then backwards and moving forwards again,

- a fourth person jumping,

- a second child following a large trolley,

- a fifth person carrying a backpack,

- a sixth person carrying a third child on their back.

53. (new) The method according to claim 42, wherein, by means of a speed sensor (D3), a speed of passage of the person is determined and the profile created by the first detection level is modified in order to obtain an independent profile independent of the speed of passage.

54. (new) The method according to claim 53, wherein the speed of passage is determined by means of a Doppler radar (D3).

55. (new) The method according to claim 53, wherein the speed of passage is determined by means of a distance sensor.

56. (new) The method according to claim 53, wherein the speed of passage is determined by means of successively passing through at least two infrared barriers.

57. (new) The method according to claim 42, wherein the presence of a cold body is detected by means of a second detection level formed by at least one passive infrared cell (D2).

58. (new) The method according to claim 57, wherein the second detection level precedes a third detection level constituted by a movement direction sensor (D3).

59. (new) The method according to claim 58, wherein the third detection level precedes a fourth detection level which is constituted by a speed sensor (D3).

60. (new) The method according to claim 59, wherein, by means of a fifth detection level (D4) a simultaneous passage of two people is detected.

61. (new) The method according to claim 60, wherein the detection is carried out by means of ultrasonic sensors (D4) arranged transversely to the passage.

62. (new) The method according to claim 61, wherein the detection is carried out by means of a laser cooperating with a rotating mirror configured to determine the profile in a plane perpendicular to the profile itself.

63. (new) The method according to claim 61, wherein the detection is carried out by means of recognition of an image taken facing the passage configured to determine the profile in a plane perpendicular to the profile itself.

64. (new) The method according to claim 61, wherein the detection is carried out by means of a capacitive measurement (DMI).

65. (new) The method according to claim 61, wherein the detection is carried out by means of distance sensors configured to detect a position of feet in order to determine:

- if the person's legs are far apart,

- if the person has a trolley beside them,

- if two people are passing through side by side.

66. (new) The method according to claim 65, wherein in temperature sensors are used to distinguish between the person beside a trolley and the two people passing through side by side.

67. (new) The method according to claim 60, wherein the detection is carried out by two crossed series of level 1 sensors.

68. (new) The method according to claim 60, wherein the detection is carried out by a capacitive measurement system sensitive to a dielectric characteristics of a human body.

69. (new) The method according to claim 53, wherein by means of the speed sensor (D3) a person turning back on themselves is detected.

70. (new) A device for detecting a passage associated with an access door in order to guarantee passage of one person only, comprising:

- a first detection level formed by a vertical row of active infrared emitting cells (D1) arranged opposite a vertical row of receiving cells configured to determine a profile of a person entering a control point, the cells being connected to a central processing unit (CPU) configured to manage a sampling and a frequency of emission of the signals;

- means for analyzing said profile, said analyzing means comprising:

means for filtering zones of said profile in order to mask them or to eliminate interference zones, and

means for dividing said profile into zones which are processed separately; and

- means for controlling an opening of the access door and for maintaining the door in a closed state.

71. (new) The device according to claim 70, further comprising:

a second detection level formed by a passive infrared cell (D2) configured to detect the presence of a cold body.

72. (new) The device according to claim 70, further comprising:

a speed sensor (D3) configured to determine a speed of passage of the person,

means for modifying the profile determined by the first detection level in order to obtain an independent profile independent of the speed of passage,

means for comparing the obtained independent profile with an architecture of profiles contained in a memory.

73. (new) The device according to claim 72, wherein the means for determining the speed of passage include a Doppler radar (D3).

74. (new) The device according to claim 72, wherein the second detection level precedes a third detection level constituted by the speed sensor (D3).

75. (new) The device according to claim 70, further comprising:

a detection level for detecting the simultaneous passage of two people constituting ultrasonic sensors (D4) arranged transversely to the passage.

76. (new) The device according to claim 70, wherein the central processing unit (CPU) is configured to communicate with different detection levels, the CPU connected to a memory (M) comprising an architecture of stored profiles, the CPU configured to perform a comparison the profiles determined by the sensors (D1, D2, D3, D4) to the stored profiles contained in the memory, and to control as a function of results of the comparison the opening of the access door, maintaining the door in a closed state, and triggering an alarm.

77. (new) The device according to claim 74, wherein the radar (D3) of the third detection level is arranged at a distance from an entry (1) to the access door and is orientated so as to send a beam towards the entry (1).

78. (new) The device according to claim 71, wherein the passive infrared cell (D2) comprises at least two cells arranged one above the other at an entry (1) to the door and orientated so as to send beams transversely to the passage.

79. (new) The device according to claim 75, wherein sensors for the detection level of the simultaneous passage of several people comprise at least three ultrasonic sensors (D4) arranged at an upper part of an entry (1) to the access door and orientated so as to diffuse the beams downwards.

80. (new) The device according to claim 70,

wherein the access door is bidirectional, and

wherein an entry (1) to and an exit (2) from the door

each comprise a group of sensors (D1, D2, D3, D4) having

identical functions.